Illinois
Environmental
Protection Agency

Bureau of Land
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APPENDIX A TO LPC-PA2

INSTRUCTIONS FOR PREPARING AN APPLICATION
FOR AN INERT WASTE LANDFILL

This Appendix sets out the type of information needed in addition to the general information requested in the LPC-PA2 Instructions. You should review Appendices A-G and Section VI of LPC-PA2 form to determine which are applicable to your facility. This Appendix explains the requirements in 35 IAC 811 Subpart B for inert waste landfills.

I. Inert Waste Determination

A. Waste Description

1. The applicant shall demonstrate that his waste will not decompose biologically, burn, serve as a food for vectors, form a gas, cause odor or form a contaminated leachate.

2. The applicant shall provide a written description of the waste characteristics that demonstrates that the waste is inert.

B. Leachate Analysis

Laboratory analysis must be provided demonstrating that the waste does not produce a contaminated leachate. That is, none of the constituents of the leachate may exceed the public and food processing water standards described in 35 IAC, Subtitle C, 302.301, 302.304 and 302.305 and the Class I groundwater standards of 35 IAC, Subtitle G, 620. In making this demonstration, either leachate produced in the field or the lab may be used (see 35 IAC 811.202(b) and (c)). The laboratory procedure ASTM D3987 or equivalent may be used if it is believed to represent actual conditions.

II. Design Considerations

A. Design Period

Provide the design period of all waste disposal units pursuant to 35 IAC 811.203. The design period is defined as the facility operating life plus five (5) years but not to be less than fifteen years.

B. Final Cover System

For the design of the final cover system, pursuant to 35 IAC 811.204, see "Closure Plan and Postclosure Care Plan" for Inert Waste Landfills, Item III(A)(9)(c).

C. Final Slope and Stabilization

For the design of the final slopes and a demonstration that the waste disposal unit shall be designed and constructed in accordance with 35 IAC 811.205, see "Closure Plan and Postclosure Care Plan" for Inert Waste Landfills, Item III(A)(9)(a) and (b).

D. Leachate Sampling

The following information must be included in a leachate sampling plan in conformance with 35 IAC 811.206:

1. Monitoring System Design

    a. A scale map(s) (1" = 200' or greater) showing the location of the monitoring system intended to collect samples of leachate;

    b. A description of the methods to collect the samples of leachate;

    c. The design of all collection devices and of all monitoring points;

    d. A demonstration that the monitoring system, collection methods and devices are capable of collecting the most representative and undiluted samples of leachate generated by the facility.

2. Leachate Monitoring Reports

    a. Describe the procedure to collect and analyze leachate samples once every six months, including:

        i. A laboratory test procedure in accordance with 35 IAC 811.202 and the Inert Waste determination;

        ii. A statistical procedure for evaluating leachate data pursuant to 35 IAC 811.320(e);

        iii. A test method to determine if the leachate is a contaminated leachate pursuant to 35 IAC 811.202;

        iv. A description of the notification procedure pursuant to 35 IAC 811.206(d) if the leachate is found to be contaminated;

        v. A plan describing, if the facility is found to be generating a contaminated leachate, how the facility shall comply with the design requirements and performance standards for Putrescible and Chemical Waste Landfills as set forth in 35 Ill. Admin Code, Part 811, Subpart C, including closure and remedial action.

    b. Describe the procedure to collect and analyze leachate samples once every two years and test for the presence of organic chemicals pursuant to 35 IAC 811.319(a)(3), including:

        i. A laboratory test procedure in accordance with 35 IAC 811.202 and the Inert Waste Determination;

        ii. A statistical procedure for evaluating leachate data pursuant to 35 IAC 811.320(e);

        iii. A test method to determine if the leachate contains organic chemicals in accordance with, 35 IAC 811.319(a)(3);

        iv. A description of the notification procedure pursuant to 35 IAC 811.206(c) if the leachate is found to contain organic chemicals.

c. A schedule for submitting the chemical analysis tests requested in Part II.D.2 above to the Agency in accordance with 35 IAC 813.502.

E. Load Checking

The following information must be included in a load check plan in conformance with 35 IAC 811.207:

1. A procedure by which all waste loads entering the facility are accompanied by documentation and certification by a representative of the generator that the waste is an inert waste and has been tested in accordance with the requirements of 35 IAC 811.202.

2. A description of a random load checking program which complies with the requirements of 35 IAC 811.323 and also contains a procedure to:

   a. detect and discourage attempts to dispose non-inert wastes at the landfill;

   b. requires the facility's inspector to examine at least one random load of solid waste delivered to the landfill on a random day each week; and

   c. requires the operator to test one randomly selected waste sample in accordance with 35 IAC 811.202(a) and (b) to determine if the waste is inert.

F. Construction Quality Assurance

The application of final cover and construction of ponds, ditches, lagoons and berms are subject the requirements of Subpart E: Construction Quality Assurance Programs. Refer to Appendix E of the instructions to determine the information necessary to comply with these requirements for these type of structures. Attach your construction document to this report.

III. Closure Plan and Post Closure Care Plans for Inert Waste Landfills

A. The closure plan must at a minimum include the following:

1. A map showing the configuration of the facility after closure of all units, with the following:

   a. The contours of the proposed final topography (after placement of the final cover) of all disturbed areas and showing how the final contours blend with the surrounding topography;

   b. A scale no smaller than 1" = 200 and a contour interval of two feet; and

   c. The location of all facility-related structures to remain as permanent features after closure;

2. Identification of the "assumed closure date" (i.e. the date during the next permit term on which the costs of premature final closure of the facility will be greatest);

3. Steps necessary for the premature final closure of the site at the assumed closure date;

4. Steps necessary for the final closure of the site at the end of its intended operating life;

5. Steps necessary to prevent damage to the environment during temporary suspension of waste acceptance. (This is necessary only if the operator wants a permit which would allow temporary suspension of waste acceptance at the site without initiating final closure);

6. A description of the steps necessary to decontaminate equipment during closure;

7. An estimate of the expected year of closure;

8. Schedules for the premature and final closure, which shall include, at a minimum:

    a. Total time required to close the site; and

    b. Time required for closure activities which will allow tracking of the progress of closure; and

9. A description of methods for compliance with all closure requirements of 35 IAC 811 applicable to the facility. This will necessitate the following information:

    a. A demonstration (i.e., calculations) that the final slope will have a Static Safety Factor of at least 1.5 and a Seismic Safety Factor of at least 1.3 throughout the design period.

    b. A demonstration that the proposed vegetation and other surface stabilization procedures meet the following standards:

        i. Vegetation shall be compatible with (i.e. grow and survive under) the local climatic conditions;

        ii. Vegetation shall require little maintenance;

        iii. Vegetation shall consist of a diverse mix of native and introduced species consistent with the post-closure land use; and

        iv. Temporary erosion control measures, including, but not limited to, the application, alone or in combination, of mulch, straw, netting, or chemical soil stabilizers, shall be undertaken while vegetation is being established.

    c. The following information must be provided regarding final cover:

        i. Specification of the thickness of the final cover (minimum: 3 feet);

        ii. A description of the soil including a demonstration that it can support the proposed vegetation;

        iii. Identification of the source of final cover and a demonstration that the proposed source contains an adequate volume of suitable soil; and

        iv. A sampling program based on statistical sampling techniques which establishes criteria for acceptance or rejection of materials, and the construction operations to be used in the construction quality assurance program.

    d. Calculations demonstrating that all drainage control structures have been designed to accommodate runoff from a 100 year, 24-hour precipitation event without scouring or erosion.

B. The "Post Closure Care Plan" must, at a minimum, include the following:

1. Descriptions of the inspection and monitoring schedules, the inspections themselves, and the quantitative criteria for performing maintenance for the final cover.

2. Criteria for reducing the frequency of inspection of the final cover.

3. Criteria for ceasing to inspect the final cover.

NOTE: If any of the postclosure care information is contained in other reports submitted with this Application it may be included in the postclosure care plan by reference.

C. The following information regarding cost estimates must be provided:

1. Closure Cost

a. The itemized cost of applying final cover to the entire area that will be filled during the period starting at the beginning of the permit term and ending on the assumed closure date.

b. The cost of construction an adequate drainage control system.

c. The cost of equipment decontamination.

d. The cost of certification of closure.

2. Post Closure Care Cost

a. The itemized cost of carrying out all of the activities described in the postclosure care plan.

b. Calculations determining the present value of providing postclosure care based on the following assumptions:

i. Landfill operations will cease on the assumed closure date.

ii. Postclosure care shall continue throughout the remainder of the design period with no reduction in the frequency or stringency of any postclosure care activity, except as allowed by 35 IAC 811.111(c)(1)(a).

iii. The discount rate shall be 4 percent per annum and that there shall be no inflation.

3. Sum of the closure cost plus the present value of the post-closure cost.

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